



US Army Corps
of Engineers®

Engineer Research and
Development Center

Coastal Field Data Collection Environmental Metrics for Coastal Projects

Problem How do we assess, evaluate and compare environmental resources? How can these resources be considered equitably and simply in the decision making process? What information will help decision makers in assessing investments which yield environmental benefits? The Corps struggles to communicate, internally and externally, the value of environmental benefits. Lack of a generally applicable, easily understood metric is the base of this problem.

Research Approach The issues outlined in the problem statement are a concern not only to the Corps but to other Federal agencies, state resource agencies, non-governmental organizations and other resource managers. This work will involve an interagency group in exploring six approaches to environmental metrics. This will be done by analysis of case studies: monetary values for resources on Eglin Air Force base, including barrier islands; energy flows as a metric for coastal Louisiana; NOAA's damage assessment for the value of resources damaged by the Exxon Valdez; Brownfields redevelopment strategies; EPA's metrics for regulatory actions and a municipality doing ecosystem restoration. This research will include review of the wealth of pertinent, quality peer reviewed literature available.

Labs/others involved Institute for Water Resources; Planning Community of Practice (PCoP); Econ sub Community of Practice; Coastal sub Community of Practice; Engineering Research and Development Center (Coastal and Environmental Labs) ; EPA (Center for Ecological Economics); NOAA; Nature Conservancy; European Union; Department of Defense; Oak Ridge National Lab.

Final Products Annotated Bibliography. White paper/tech note evaluating six case studies, each using a different analytical approach. Virtual notebook of interagency presentations. All items will be posted on the PCoP site with articles in *Planning Ahead* informing the community of their availability. Three conference presentations are scheduled—Sept. 07, Dec. 07 and May 08. Conferences stress the use of environmental metrics within a decision making framework. A one page glossy fact sheet will be prepared as a handout for the conferences. Products will be shared with the interagency group for education, use and adaptation. A peer reviewed article is being considered pending outcome of the research.

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